

AMENDMENTS TO THE CLAIMS

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This listing of claims will replace all prior versions, and listings, of claims in

the application.

Listing of claims:

1. (Currently Amended) A method for forming a good contact surface on an electrolysis cell busbar used in the electrolysis of metals, where at least the surface of the bar is made of copper and the contact surface forms [[of]] an area on to which an electrode is lowered, ~~characterised in that a transmission layer is formed~~ comprising, forming on the copper contact surface of said busbar a transmission layer, coating ~~after which~~ the contact surface ~~is coated~~ with silver or silver alloy using soldering or thermal spraying technique, wherein the coating material forms a metallurgical joint with the copper and the transmission layer.
2. (Currently Amended) [[A]]The method according to claim 1, ~~characterised in that~~ wherein the transmission layer is [[of]] tin or a tin-dominant alloy.
3. (Currently Amended) [[A]]The method according to claim 1 or 2, ~~characterised in that~~ wherein the silver alloy is silver-copper.
4. (Currently Amended) [[A]]The method according to ~~any of the above claims,~~ ~~characterised in that~~ claim 1, further comprising, equipping the electrolysis cell in addition to a busbar the electrolysis cell is equipped with a potential balancing bar, ~~on which a transmission layer is formed~~ forming on the copper surface of said potential balancing bar a transmission layer ~~that comes into contact with the electrode, after which the contact surface is coated~~ coating with silver or silver alloy, wherein the coating material forms a metallurgical joint with the copper and the transmission layer.
5. (Currently Amended) [[A]]The method according to ~~any of the above claims,~~ ~~characterised in that~~ claim 1, wherein the busbar is continuous in the longitudinal direction, ~~so that the thereby forming a coating layer is formed~~ along the whole length of the busbar.

6. (Currently Amended) [[A]]The method according to any of the above claims, characterised in that claim 1, further comprising notching or grooving the contact surfaces of the busbar onto which the electrode is lowered, are formed by notching or grooving, wherein and forming the coating layer is formed on the notched or grooved areas of the busbar.
7. (Currently Amended) [[A]]The method according to claim 1, characterised in that wherein the thermal spraying technique is based on gas combustion.
8. (Currently Amended) [[A]]The method according to claim 1, characterised in that wherein the thermal spraying technique is high velocity oxy-fuel spraying.
9. (Currently Amended) [[A]]The method according to any of the above claims, characterised in that claim 1, wherein the highly electroconductive coating material is highly electroconductive and in powder form.
10. (Currently Amended) [[A]]The method according to claim 1, characterised in that wherein the thermal spraying technique is flame spraying.
11. (Currently Amended) [[A]]The method according to claim 1, any of claims 1—7 or 10, characterised in that wherein the highly electroconductive coating material is highly electroconductive and in wire form.
12. (Currently Amended) [[A]]The method according to any of the above claims, characterised in that claim 1, wherein the contact surface is subjected to heat treatment after coating.
13. (Currently Amended) An electrolysis cell busbar for use in the electrolysis of metals, whereby at least a surface section of the busbar is made of copper and a contact surface forms an area onto which an electrode is lowered, characterised in that wherein a transmission layer is formed on the contact surface of the busbar comprises a transmission layer, after which and the contact surface has been coated with silver or silver alloy using soldering or thermal spraying technique, wherein the copper, transmission layer and coating material have formed a metallurgical joint.

14. (Currently Amended) [[A]]The busbar according to claim 13, characterised in that wherein the transmission layer is tin or a tin-dominant alloy.
15. (Currently Amended) [[A]]The busbar according to claim 13 or 14, characterised in that wherein the silver alloy is silver-copper.
16. (Currently Amended) [[A]]The busbar according to any of claims 13—15, characterised in that claim 13, wherein the busbar is continuous in the longitudinal direction, wherein the coating layer is formed along the whole length of the busbar.
17. (Currently Amended) [[A]]The busbar according to any of claims 13—15, characterised in that claim 13, wherein the busbar contact surfaces onto which the electrode is lowered, are fabricated by notching or grooving, wherein the coating layer is formed on the notched or grooved areas of the busbar.
18. (Currently Amended) [[A]]The busbar according to any of claims 13—15, characterised in that claim 13, wherein the busbar is a potential balancing bar.